

c.) Amendments to the Claims

Please cancel claims 1-42 without prejudice or disclaimer of the subject matter thereof.

Please add the following as new claims 43-103:

43. (NEW) An acid composition consisting essentially of:

0.1 to 25 volume percent of a first GRAS acid, which is an inorganic acid that dissociates nearly to completion in water;

0.1 to 25 volume percent of a second GRAS acid, which is an inorganic acid less strong than the first GRAS acid and having a dissociation constant of less than about 10^{-1} ;

0.5 to 20 weight percent of a third GRAS acid, the third GRAS acid being a hydroxy acid having a chelating capability of at least twice the first and second GRAS acids; and water.

44. (NEW) The acid composition of claim 43, wherein the third GRAS acid is an organic acid.

45. (NEW) The acid composition of claim 43, wherein the third GRAS acid is weaker than the first and second GRAS acids, the third GRAS acid having a dissociation constant of from 10^{-1} to 10^{-5} .

46. (NEW) The acid composition of claim 43, wherein the acid composition has a pH of less than one.

47. (NEW) The acid composition of claim 43, wherein the first GRAS acid is hydrochloric acid.

48. (NEW) The acid composition of claim 43, wherein the second GRAS acid is phosphoric acid.

49. (NEW) The acid composition of claim 43, wherein the third GRAS acid is citric acid.

50. (NEW) The acid composition of claim 43, wherein the first GRAS acid is 10N -12N concentrated hydrochloric acid.

51. (NEW) The acid composition of claim 43, wherein the second GRAS acid is 75-80% concentrated phosphoric acid.

52. (NEW) The acid composition of claim 43, wherein the first GRAS acid is hydrochloric acid, the second GRAS acid is phosphoric acid and the third GRAS acid is citric acid.

53. (NEW) The acid composition of claim 43, wherein the second GRAS acid serves as a conjugate base to the first GRAS acid.

54. (NEW) The acid composition of claim 43, wherein the third GRAS acid is a hydroxyl-carboxylic acid.

55. (NEW) The acid composition of claim 43, wherein the third GRAS acid is selected from the group consisting of ascorbic, citric, malic, and tartaric acids.

56. (NEW) The acid composition of claim 43, wherein the third GRAS acid is a tricarboxylic acid.

57. (NEW) The acid composition of claim 43, wherein the third GRAS acid comprises at least three carbon atoms.

58. (NEW) The acid composition of claim 43, wherein the acid composition is safe for ingestion.

59. (NEW) The acid composition of claim 43, wherein the acid composition is safe for use on surfaces that contact ingestible products.

60. (NEW) The acid composition of claim 43, wherein the acid composition is substantially nonreactive with human skin.

61. (NEW) The acid composition of claim 43, wherein the acid composition is substantially non-corrosive to metals.

62. (NEW) The acid composition of claim 43, wherein the acid composition is used to process food items.

63. (NEW) The acid composition of claim 43, wherein the acid composition is used to decontaminate surfaces.

64. (NEW) The acid composition of claim 43, wherein the acid composition inhibits microbial growth when applied to a surface.

65. (NEW) A method of making an acid composition comprising:
admixing from 0.1 to 25 volume percent of a first GRAS acid, the first GRAS acid being an inorganic acid that dissociates nearly to completion in water, with 0.5 to 25 volume percent of a second GRAS acid, the second GRAS acid being an inorganic acid less strong than the first GRAS acid and having a dissociation constant of less than about 10^{-1} , to produce a first acid mixture; and

admixing 0.5 to 20 weight percent of a third GRAS acid, the third GRAS acid being a hydroxy acid having a chelating capability of at least twice the first and second GRAS acids, with water to produce a second acid mixture; and

admixing the first acid mixture with the second acid mixture to produce an acid mixture that has a pH of less than one.

66. (NEW) The method of claim 65, wherein the third GRAS acid is an organic acid.

67. (NEW) The method of claim 65, wherein the third GRAS acid is weaker than the first and second GRAS acids, the third GRAS acid having a dissociation constant of from 10^{-1} to 10^{-5} .

68. (NEW) The method of claim 65, wherein the first GRAS acid is hydrochloric acid.

69. (NEW) The method of claim 65, wherein the second GRAS acid is phosphoric acid.

70. (NEW) The method of claim 65, wherein the third GRAS acid is citric acid.

71. (NEW) The method of claim 65, wherein the first GRAS acid is 10N -12N concentrated hydrochloric acid.

72. (NEW) The method of claim 65, wherein the second GRAS acid is 75-80% concentrated phosphoric acid.

73. (NEW) The method of claim 65, wherein the first GRAS acid is a hydrochloric acid, the second GRAS acid is a phosphoric acid and the third GRAS acid is a citric acid.

74. (NEW) The method of claim 65, wherein the third GRAS acid is a hydroxy carboxylic acid.

75. (NEW) The method of claim 65, wherein the third GRAS acid is selected from the group consisting of ascorbic, citric, malic, and tartaric acids.

76. (NEW) The method of claim 65, wherein the third GRAS acid is a tricarboxylic acid.

77. (NEW) The method of claim 65, wherein the third GRAS acid comprises at least three carbon atoms.

78. (NEW) The method of claim 65, wherein the acid composition is safe for ingestion.

79. (NEW) The method of claim 65, wherein the acid composition is applied to surfaces that contact ingestible products.

80. (NEW) The method of claim 65, wherein the acid composition is substantially nonreactive with human skin.

81. (NEW) The method of claim 65, wherein the acid composition is substantially noncorrosive to metals.

82. (NEW) The method of claim 65, wherein the acid composition further comprises a pharmaceutical composition.

83. (NEW) The method of claim 65, wherein the acid composition is applied to food items.

84. (NEW) The method of claim 65, wherein the acid composition is a food preservative.

85. (NEW) The method of claim 65, wherein the acid composition is a surface decontaminant.

86. (NEW) The method of claim 65, wherein the acid composition is applied to surfaces to inhibit microbial growth.

87. (NEW) An acid composition consisting essentially of:
0.11 to 26 weight percent of a GRAS acid, the first GRAS acid being an inorganic acid that dissociates nearly to completion in water;
0.16 to 40 weight percent of a second GRAS acid, the second GRAS acid being an inorganic acid less strong than the first GRAS acid and having a dissociation constant of less than about 10^{-1} ;
0.5 to 20 weight percent of a third GRAS acid, the third GRAS acid being a hydroxy acid having a chelating capability of at least twice the first and second GRAS acids; and water.

88. (NEW) The acid composition of claim 87, wherein the third GRAS acid is an organic acid.

89. (NEW) The acid composition of claim 87, wherein the third GRAS acid is weaker than the first and second GRAS acids, the third GRAS acid having a dissociation constant of from 10^{-1} to 10^{-5} .

90. (NEW) The acid composition of claim 87, wherein the acid composition has a pH of less than one.

91. (NEW) The acid composition of claim 87, wherein the first GRAS acid is hydrochloric acid.

92. (NEW) The acid composition of claim 87, wherein the second GRAS acid is phosphoric acid.

93. (NEW) The acid composition of claim 87, wherein the third GRAS acid is citric acid.

94. (NEW) The acid composition of claim 87, wherein the first GRAS acid is 10N or 12N concentrated hydrochloric acid.

95. (NEW) The acid composition of claim 87, wherein the second GRAS acid is 75-80% concentrated phosphoric acid.

96. (NEW) The acid composition of claim 87, wherein the first GRAS acid is hydrochloric acid, the second GRAS acid is phosphoric acid and the third GRAS acid is citric acid.

97. (NEW) The acid composition of claim 87, wherein the acid composition is applied to surfaces to inhibit microbial growth.

98. (NEW) An acid composition for detoxification/deactivation of chemical or biological agents consisting essentially of:

0.11 to 26 weight percent of a GRAS acid, the first GRAS acid being an inorganic acid that dissociates nearly to completion in water;

0.16 to 40 weight percent of a second GRAS acid, the second GRAS acid being an inorganic acid less strong than the first GRAS acid and having a dissociation constant of less than about 10^{-1} ;

0.5 to 20 weight percent of a third GRAS acid, the third GRAS acid being a hydroxy acid having a chelating capability of at least twice the first and second GRAS acids; and

a permanganate.

99. (NEW) The acid composition of claim 98 further comprising metal ions selected from the group consisting of zinc, calcium, copper, iron, manganese, cobalt.

100. (NEW) The acid composition of claim 98 further comprising a butanol.

101. (NEW) The acid composition of claim 98 further comprising hydrogen peroxide.

102. (NEW) The acid composition of claim 98 further comprising a hydroxylamine.

103. (NEW) The acid composition of claim 98 further comprising an oxime.